

# 2024 CAPITAL IMPROVEMENTS PLAN

FOR THE

## NORTH MANCHESTER WATER ASSOCIATION CLAY COUNTY, KENTUCKY

September 3, 2024

SME NO. 23014

PREPARED BY:



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## **Capital Improvements Plan**

The Capital Improvements Plan (CIP) is a multi – year planning tool used to identify community infrastructure needs and sources of financing. The purposed of the CIP is facilitate the planning of infrastructure improvements, to maintain the North Manchester Water Association existing water distribution system, and to provide for acquisition or replacement of equipment to ensure expedient delivery of services to the Clay County community.

A CIP is an essential tool for maintaining the well – being of the system. The plan is necessary to strengthen the quality of both facilities and services, and to set community goals into action while also informing residents and stakeholders of how the municipality plans to address significant needs over the next ten years.

The projects outlined in the CIP represent the Association’s current plan to bother serve residents and anticipate maintenance and replacement needs. Since things change continuously, a CIP should not be a static document. At least each year, all projects should be reviewed, completed projects removed, new projects added, and adjustments to existing projects made depending on circumstances.

### **Budgeting**

The CIP provides a link between planning and budgeting for capital projects. NMWA acknowledges that these projects represent a reasonable interpretation of the upcoming needs for the community and that projects contained in the first year of the plan are suitable for inclusion in the upcoming budget.

### **Prioritization and & Criteria**

The NMWA is a medium sized water system covering most of the Northern portion of Clay County. Nearly all roads within the NMWA boundary have water service.

Presently, the Associations' biggest problems or needs are four fold: 1) Cutting water losses in the distribution system; 2) filling out the system with short, small – diameter waterline extensions and upgrades to fulfill a small list of new service requests; 3) replacing selected aging and or undersized primary transmission lines; and 4) installing strategic interconnections to improve system hydraulics and provide redundant feeds within the existing system.

All capital projects were evaluated by the operator and commission and ranked the following projects accordingly:

- 1.) System Wide Meter Service Replacement Project**
- 2.) Waterline Extension and Line Upgrade**
- 3.) System Wide Zone Meters**
- 4.) Lead Line Service Replacement**

#### **Funding Availability**

Funding availability is an important factor in determining the scope and timing of any infrastructure improvements. Usually, funding for rural public water projects are available from public sources such as USDA \_RD, Kentucky Infrastructure Authority, and other more specialized programs like the Community Development Block Grant program; Appalachian Regional Commission and private funding available from the Kentucky rural Water Association and Kentucky league of Cities.

The public programs have limited funds, a long and complicated application and approval process, and an uncertain timeline for funding availability. The private programs are generally quicker and simpler to secure, but often have higher rates and shorter terms. Public programs often have some grant component to their funding while private programs do not.

With funding uncertainties, governing boards are reluctant to take on new debt for projects when the potential for these projects to be funded with grants appears to be so close on the horizon.

For the purposes of this plan, the new funding sources are largely ignored, and the established sources emphasized. Should the new sources come to fruition, the funding and timing of these improvements will likely change significantly.

System - Wide Meter/Service Replacement  
Preliminary Project Budget  
North Manchester Water Association  
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Item	Description	Quantity	Units	unit cost	total
1	5/8" X 3/4" Water Meters	1920	LF	\$500.00	\$960,000.00
Total Estimated construction					\$960,000.00
Contingency					\$92,900.00
Total					\$1,052,900.00
<b>Non - Construction Items</b>					
Administrative					\$20,000.00
Legal Costs					\$30,000.00
Land, Easements, etc.					\$2,600.00
Preliminary engineering					\$2,500.00
Design Engineering					\$69,750.00
Construction Phase Engineering					\$23,250.00
Construction Inspection					\$59,000.00
Total Non Construction					\$207,100.00
Total Estimated Project Cost					\$1,260,000.00

Waterline Extension and Line Upgrade  
Preliminary Project Budget  
North Manchester Water Association  
2024 Capital Improvements plan  
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Item	Description	Quantity	Units	unit cost	total
1	Waterline Extension	16000	LF	\$30.00	\$480,000.00
2	Booster Pump Station	1	LS	170000	\$170,000.00
Total Estimated construction					\$650,000.00
Contingency					\$65,000.00
Total					\$715,000.00
<b>Non - Construction Items</b>					
Administrative					\$20,000.00
Legal Costs					\$9,500.00
Land, Easements, etc.					\$7,600.00
Preliminary engineering					\$2,500.00
Design Engineering					\$46,875.00
Construction Phase Engineering					\$15,625.00
Miscellaneous					\$30,000.00
Construction Inspection					\$42,900.00
Total Non Construction					\$175,000.00
Total Estimated Project Cost					\$890,000.00

System - Wide Zone Meter Installation  
Preliminary Project Budget  
North Manchester Water Association  
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Item	Description	Quantity	Units	unit cost	total
1	Leak Detection Meters	10	LF	\$12,000.00	\$120,000.00
Total Estimated construction					\$120,000.00
Contingency					\$17,920.00
Total					\$137,920.00
<b>Non - Construction Items</b>					
Administrative					\$20,000.00
Legal Costs					\$5,000.00
Land, Easements, etc.					\$2,600.00
Preliminary engineering					\$2,500.00
Design Engineering					\$12,400.00
Construction Phase Engineering					\$4,100.00
Construction Inspection					\$15,480.00
Total Non Construction					\$62,080.00
Total Estimated Project Cost					\$200,000.00

Lead Line Service Line Replacement  
Preliminary Project Budget  
North Manchester Water Association  
2024 Capital Improvements plan  
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Item	Description	Quantity	Units	unit cost	total
1	Leak Detection Meters	5000	LF	\$50.00	\$250,000.00
Total Estimated construction					\$250,000.00
Contingency					\$16,600.00
Total					\$266,600.00
<b>Non - Construction Items</b>					
Administrative					\$20,000.00
Legal Costs					\$5,000.00
Land, Easements, etc.					\$2,600.00
Preliminary engineering					\$2,500.00
Design Engineering					\$21,900.00
Construction Phase Engineering					\$7,400.00
Construction Inspection					\$24,000.00
Total Non Construction					\$83,400.00
Total Estimated Project Cost					\$350,000.00